New patent claims 1 through 11

1. Method for operation of a computer tomography (1) with an x-ray radiator (2) rotatable around a system axis (Z), with an x-ray detector (5) and with a radiator-side gating device (3) that comprises two opposite absorber elements (30, 31) that can be adjusted in a straight line, in particular that can be adjusted with regard to their separation from one another, for variable delimitation of the ray beam; whereby the absorber elements (30, 31) exhibit a curved shape and; the gating device (3) comprises an adjustment device that acts on the absorber elements (30, 31); such that the absorber elements (30, 31) can be moved independent of one another perpendicular to their longitudinal direction, in particular in a direction parallel to the system axis (Z); whereby an examination subject is scanned under rotation of the x-ray radiator (2) and by means of a translatory relative movement between the x-ray radiator (2) and the examination subject in the direction of the system axis (Z); characterized in that, to prevent an unnecessary radiation exposure for the examination subject, the gating device (3) is operated with absorber elements (30, 31) opened to different widths with regard to a center beam of the viewing field of the x-ray detector (3); whereby a dynamic variation of the collimation width is effected during a spiral scan.

2. Method according to claim 1, characterized in that one of the absorber elements (30, 31) is positioned in a closed position and the other absorber element (30, 31) is positioned in an open position before the beginning and/or after the end of the scanning movement, in particular the relative movement.

3. Method according to claim 2, characterized in that the absorber element (30, 31) located in the closed position is opened in synchronization with the scan movement, in particular with the relative movement, after the beginning of the scan movement, in particular the relative movement.

4. Method according to claim 2 or 3, characterized in that one of the absorber elements (30, 31) located in the open position is closed in synchronization with the scan movement, in particular with the relative movement, before the end of the scan movement, in particular the relative movement.

5. Method according to any of the claims 1 through 4, characterized in that the adjustment device for each of the absorber elements (30, 31) comprises a separate adjustment means (60, 61).

6. Method according to claim 5, characterized in that the adjustment means (60, 61) are fashioned for a linear movement of the appertaining absorber element (30, 31).

7. Method according to claim 5 or 6, characterized in that the adjustment means (60, 61) comprise a (preferably mutual) linear guide (65) and respectively one drive means (62, 67) acting on the absorber elements (30, 31).

8. Method according to claim 5 or 6, characterized in that the adjustment means (60, 61) respectively comprise a linear motor (71, 72).

9. Method according to any of the claims 1 through 8, characterized in that the curvature of the absorber elements (30, 31) runs in a plane perpendicular to the system axis (Z).

10. Method according to any of the claims 1 through 9, characterized in that the curvature exhibits the shape of a circular arc whose middle point lies (in the focus (F) of the x-ray radiator (2).

11. Method according to any of the claims 1 through 10, characterized in that the curvature radii of the absorber elements (30, 31) differ from one another by a value of 0.5 % to 10 % from the interval.